

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
22 December 2005 (22.12.2005)

PCT

(10) International Publication Number  
**WO 2005/121207 A3**

(51) International Patent Classification<sup>7</sup>: **C08G 63/688**,  
63/06, 63/91

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(21) International Application Number:  
PCT/JP2005/010999

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG,  
KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM,  
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SM,  
SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,  
YU, ZA, ZM, ZW.

(22) International Filing Date: 9 June 2005 (09.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-174783 11 June 2004 (11.06.2004) JP

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(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— with international search report

(88) Date of publication of the international search report:  
30 March 2006

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: **POLYHYDROXYALKANOATE HAVING VINYL GROUP, ESTER GROUP, CARBOXYL GROUP, AND  
SULFONIC GROUP, AND METHOD OF PRODUCING THE SAME**

(57) Abstract: To provide a novel polyhydroxyalkanoate having a reactive functional group in a molecule and a method of produc-  
ing the same; and a novel polyhydroxyalkanoate having a new function obtained by chemically modifying the polyhydroxyalkanoate  
having a reactive functional group and a method of producing the same. By utilizing a vinyl group of a polyhydroxyalkanoate con-  
taining a unit having the vinyl group at a side chain thereof, a polyhydroxyalkanoate containing units having a carboxyl group, an  
amide group, and a sulfonic group in a molecule is induced.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2005/010999

A. CLASSIFICATION OF SUBJECT MATTER  
C08G63/688 C08G63/06 C08G63/91

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
C08G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/038512 A (CANON KABUSHIKI KAISHA; MIHARA, CHIEKO; YANO, TETSUYA; KOZAKI, SHINYA;) 6 May 2004 (2004-05-06) claim 1	3
X	WO 2004/044213 A (CANON KABUSHIKI KAISHA; KENMOKU, TAKASHI; YANO, TETSUYA; MIHARA, CHIEK) 27 May 2004 (2004-05-27) claim 1	4
A	EP 1 336 635 A (CANON KABUSHIKI KAISHA) 20 August 2003 (2003-08-20) claim 2	1
P, X	WO 2004/061530 A (CANON KABUSHIKI KAISHA; MIHARA, CHIEKO; YANO, TETSUYA; KOZAKI, SHINYA;) 22 July 2004 (2004-07-22) claim 1	1,2

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

28 November 2005

Date of mailing of the international search report

05/12/2005

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2005/010999

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